UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA Richmond Division

SPRINT COMMUNICATIONS COMPANY L.P.,)
Plaintiff,) Case No. 3:18cv331
v.) JURY TRIAL DEMANDED
CHARTER COMMUNICATIONS, INC., CHARTER COMMUNICATIONS HOLDINGS, LLC, SPECTRUM MANAGEMENT HOLDING COMPANY, LLC, CHARTER COMMUNICATIONS OPERATING, LLC, TIME WARNER CABLE, LLC, Defendants.))))))))
Defendants.)

SPRINT'S COMPLAINT

Plaintiff Sprint Communications Company L.P. complains as follows against defendants Charter Communications, Inc. ("Charter Communications"), Charter Communications Holdings, LLC ("Charter Holdings"), Spectrum Management Holding Company LLC ("Spectrum Management"), Charter Communications Operating, LLC ("Charter Operating"), and Time Warner Cable, LLC ("Time Warner Cable") (collectively, "Charter").

THE PARTIES

- 1. Plaintiff Sprint Communications Company L.P. ("Sprint") is a Limited Partnership organized and existing under the laws of the State of Delaware, with its principal place of business at 6200 Sprint Parkway, Overland Park, Kansas 66251.
- 2. On information and belief, defendant Charter Communications is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 400 Atlantic Street, Stamford, Connecticut 06901.

- 3. On information and belief, defendant Charter Holdings is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 12405 Powerscourt Drive, St. Louis, Missouri 63131.
- 4. On information and belief, defendant Charter Operating is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 400 Atlantic Street, Stamford, Connecticut 06901.
- 5. On information and belief, defendant Spectrum Management is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 400 Atlantic Street, Stamford, Connecticut 06901.
- 6. On information and belief, defendant Time Warner Cable is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 400 Atlantic Street, Stamford, Connecticut 06901.
- 7. On information and belief, Charter, or one or more of their affiliates, previously provided or currently provide and participate in providing video systems, products, and/or services, including Spectrum TV, the "Spectrum TV" application, Spectrum TV.com, TWC TV, Charter TV, "TWC TV," TWCTV.com, and the "Charter TV" application, and other related products and services.

JURISDICTION

- 8. This is an action for patent infringement under the United States Patent Laws, 35 U.S.C. § 271, et. seq. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338.
- 9. This Court has personal jurisdiction over Charter Communications, Charter Holdings, Spectrum Management, Charter Operating, and Time Warner Cable because each does continuous and systematic business in this District, including by providing infringing products

and services to the residents of the Eastern District of Virginia that each knew would be used within this District, and by soliciting business from the residents of the Eastern District of Virginia. For example, Charter has a regular and established place of business at its offices in the Eastern District of Virginia—including Time Warner Cable/Spectrum corporate offices at 13820 Sunrise Valley Drive Herndon, VA 20171 and numerous Charter/Spectrum properties such as those located at 107 N Main St, Franklin, VA, 23851, 216 Moore Ave, Suffolk, VA, 23434, and 6743 Maddox Blvd #2, Chincoteague, VA, 23336—and elsewhere throughout the State of Virginia. Charter also directly and through its agents regularly solicits, transacts, and does business in the State of Virginia and specifically in the Eastern District of Virginia, including through Spectrum branded TV products such as Spectrum TV, the "Spectrum TV" application, SpectrumTV.com, and legacy TWC and Charter branded TV products such as TWC TV, Charter TV, "TWC TV," TWCTV.com, and the "Charter TV" application, which are made for, marketed, offered, and distributed to and used by users of Charter's products and services in this Judicial District and throughout the State of Virginia.

10. Charter has committed and continues to commit acts of infringement in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, and/or sold infringing products and services in the State of Virginia, including in the Eastern District of Virginia. For example, Charter has voluntarily and purposefully placed the Spectrum branded TV services and application in the stream of commerce with the expectation that this infringing

¹ See e.g., https://www.spectrum.com/browse/content/storelocator.html; https://www.spectrum.com/services/virginia; https://www.spectrum.com/cable-tv-service/virginia/norfolk; https://www.cabletv.com/time-warner/bundles.

product will be used in this Judicial District. Charter's infringing acts have caused and continue to cause injury to Sprint, including within this Judicial District.

VENUE

11. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b) and § 1391 because Charter transacts business within this Judicial District and has committed acts of infringement in this Judicial District. In addition, on information and belief, a substantial part of the events or omissions giving rise to these claims occurred in this District. Venue is also proper because Charter has committed acts of infringement in this District and has multiple regular and established places of business in this District. Specifically, on information and belief, Charter has a regular and established place of business at 13820 Sunrise Valley Drive Herndon, VA 20171, at 107 N Main St, Franklin, VA, 23851, at 216 Moore Ave, Suffolk, VA, 23434, and at 6743 Maddox Blvd #2, Chincoteague, VA, 23336.

JOINDER

- 12. Joinder of Charter Communications, Charter Holdings, Spectrum Management, Charter Operating, and Time Warner Cable is proper under 35 U.S.C. § 299. The allegations of patent infringement contained herein arise out of the same series of transactions or occurrences relating to the making, using, offering for sale, and/or selling within the United States, and/or importing into the United States, of the same accused products or services.
- 13. Common questions of fact relating to infringement will arise in this action. For example, common questions of fact regarding the design, development, and operation of defendants' video services without Sprint's permission will arise in this action, as well as common questions of fact concerning the defendants' decision to implement infringing services.
- 14. Common questions of fact will exist as to damages resulting from defendants' willful infringement, including the profits and revenues derived by defendants from selling,

making, and/or using or operating Sprint's patented technology. On information and belief, common questions of fact and law will also likely exist with regard to defendants' defenses in this litigation, if any.

FACTUAL BACKGROUND

The Patents-In-Suit

- 15. Sprint Communications is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,754,907 ("the '4,907 patent") entitled "Remote Control of Video-On-Demand System," which duly and legally issued in the names of James Schumacher, Mike O'Brien, and Jay Cee Straley on June 22, 2004. A true and correct copy of the '4,907 patent is attached to this Complaint as Exhibit A.
- 16. Sprint Communications is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,757,907 ("the '7,907 patent") entitled "Display Selection in a Video-On-Demand System," which duly and legally issued in the names of James Schumacher, Mike O'Brien, and Jay Cee Straley on June 29, 2004. A true and correct copy of the '7,907 patent is attached to this Complaint as Exhibit B.
- 17. Sprint Communications is the owner by assignment of all right, title, and interest in and to United States Patent No. 7,559,077 ("the '077 patent") entitled "Video System for Use Where the Network Transfer Rate is Slower than the Video Display Rate," which duly and legally issued in the name of Warren Cope on July 7, 2009. A true and correct copy of the '077 patent is attached to this Complaint as Exhibit C.
- 18. The patents identified in Complaint Paragraphs 15–17 and attached as Exhibits A–C are herein collectively referred to as the "Asserted Patents."

Sprint's Patented Video Technologies

- 19. Sprint has a long history of technological innovation, including revolutionary network design and leveraging the capabilities of the Internet and IP protocols. In the 1990s, Sprint sought to leverage its technological expertise to improve the control and delivery of video content to consumers. While video systems were known before these patents were filed, conventional video systems suffered from numerous significant limitations that the patents addressed.
- 20. Specifically, the '7,907 and '4,907 patents describe, among other things, an enhanced video-on-demand system which transfers video content and control screen signals over a second communications system to a portable computer that can be used for control. *See*, e.g., Ex. A, '4,907 Patent at 1:30-43; Ex. B, '7,907 Patent at 1:39-55. The video-on-demand system also receives a control signal from the second communication system and, based on that signal, determines whether to transfer video-on-demand content to a first communication system which may be further connected to a television display set, for example, or a second communication system which may be further connected to a portable device (e.g., a cell phone or computer).
- 21. Sprint's additional innovations relating to content delivery are also shown and described in the '077 patent. A network interface configured to receive a network signal from a communication network wherein the network signal includes video, a memory configured to store the video from the network signal, a video interface configured to transfer a video signal to a video display wherein the video signal includes the video from the memory, and a processing system configured to determine when to initiate the transfer of the video signal from the video interface based on a first time period and a second time period wherein the first time period is determined based on the video display rate times a first amount of the video in the memory and

the second time period is determined based on a network transfer rate times a second amount of the video to be subsequently received in the network signal was not common or conventional at the time of the '077 patent.

- 22. For instance, as stated in the '077 patent, conventional video-on-demand systems at the time did not allow the video-on-demand system to download a portion of the video before the video display began. *See* Ex. C, '077 Patent, at 1:35-56. Likewise, the prior video-on-demand systems did not offer video display to a user "[i]f the network transfer rate becomes slower than the video display rate." *See, e.g., id. See, e.g.*, Ex. C, '077 Patent, at 1:35-56. Conventional systems also did not determine when to initiate transfer of video to a display based on video display rates, network transfer rates, the amount of video already transferred, and the amount of video still to be transferred.
- 23. The inventors of the '077 patent solved these limitations. *See*, *e.g.*, Ex. C, '077 Patent, at 1:35-56. They invented a system configured to receive a network signal including a video, store the video from the network signal in memory, determine when to initiate transfer of the video from the memory based on first and second time periods, and transfer the video to a video display in response to the determination. Thus, the '077 patent discloses an improved video system that is able to receive and deliver a constant stream of video content using a system capable of using a network with less bandwidth. In particular, the disclosures of the '077 patent provide an unconventional technological solution to an issue arising specifically in the context of video display and network technologies involving electronic devices, including by introducing novel elements directed to improving the function and working of electronics, such as the claimed video system involving networks, memories, displays, and processing systems.

Charter

- 24. Upon information and belief, Charter is the second largest cable operator in the United States and a leading broadband communications company providing video, Internet, and voice services to residential and business customers. *See* Charter Communications 2018 Annual Report (Form 10-K) at p. 1-3, http://ir.charter.com/phoenix.zhtml?c=112298&p=irol-sec as "2/2/2018 10-K" (last accessed May 15, 2018). Upon information and belief, Charter has over 27 million customers and its network reaches 50 million homes and businesses. *See id*.
- 25. Upon information and belief, Charter Communications is the parent company to Charter Holdings, owns, and exercises control over Charter Holdings. See generally id. at pp. 1-**CCO** 3: Holdings, LLC 2018 Annual Report (Form 10-K) 1-3, at p. http://ir.charter.com/phoenix.zhtml?c=112298&p=irol-sec as "2/13/2018 10-K" (last accessed May 15, 2018). Upon information and belief, Charter Communications and Charter Holdings are parent companies to, and own and exercise control over, Spectrum Management, and Charter Operating, Time Warner Cable. See Charter Communications 2018 Annual Report (Form 10-K) at p. 1-3, http://ir.charter.com/phoenix.zhtml?c=112298&p=irol-sec as "2/2/2018 10-K" (last accessed May 15, 2018). Upon information and belief, substantially all of Charter's operations reside with Charter Operating. See id.
- 26. Upon information and belief, Charter Communications entered into an agreement for a merger with Time Warner Cable on May 23, 2015. *See id.* Upon information and belief, Charter Communications completed the merger with Time Warner Cable on May 18, 2016, with Charter Communications becoming the parent company which controls operations of the combined companies. *See* Charter Communications 2017 Annual Report (Form 10-K) at p. 1-4, http://ir.charter.com/phoenix.zhtml?c=112298&p=irol-sec as "2/16/2017 10-K" (last accessed

May 15, 2018). Upon information and belief, Time Warner Cable merged into what is now known as Spectrum Management. *See e.g.*, TWC Rule 7.1 Disclosure Statement, *Sprint Communications Co. L.P. v. Time Warner Cable Inc.*, *et al.*, Case No. 11-cv-2686-JWL (D. Kan.), D.I. 253. Upon information and belief, as part of that merger, Charter Communications and/or one or more of its subsidiaries assumed Time Warner Cable's past liabilities with regard to the infringement of the Asserted Patents.

- 27. Upon information and belief, Charter has made, used, offered to sell, and/or sold, and continues to make, use, offer to sell, and/or sell a variety of video products or services without Sprint's permission, including Spectrum TV, the "Spectrum TV" application, SpectrumTV.com, and legacy TWC and Charter branded TV products such as TWC TV, Charter TV, "TWC TV," TWCTV.com, and the "Charter TV" application, in connection with Charter's video systems, servers, and backend components and interfaces, without Sprint's permission.
- Upon information and belief, Charter has made, used, offered to sell, or sold, and continues to make, use, offer to sell, or sell Spectrum TV, the "Spectrum TV" application, SpectrumTV.com, and legacy TWC and Charter branded TV products such as TWC TV, Charter TV, "TWC TV," TWCTV.com, and the "Charter TV" application, in connection with Charter's video systems and servers, within this Judicial District.
- 29. Further, Time Warner Cable had knowledge of the '7,907 and '4,907 patents and the infringing nature of its services no later than 2013. On or about May 20, 2013, Sprint and Time Warner Cable jointly filed a Stipulated Protective Order, specifically noting the *Comcast Cable Communications, LLC et al. v. Sprint Communications Company L.P.*, Case No. 2:12-cv-00859-JD (E.D.P.A.) ("E.D.P.A. Comcast Litigation"), where Sprint asserted, *inter alia*, the

Stipulated Protective Order, at 6, Sprint Communications Co. L.P. v. Comcast Cable Communications, LLC et al., Case No. 11-cv-2684-JWL (D. Kan.), D.I. 88.

'7,907 patent and the '4,907 patent against Comcast. Through its knowledge of the E.D.P.A. Comcast Litigation and its interactions with counsel for Comcast in connection with the various patent infringement actions brought by Sprint against Comcast and/or Time Warner Cable, Time Warner Cable became aware of the '7,907 patent and '4,907 patent—as well as Sprint's infringement allegations and the relevance of Sprint's patents to Time Warner Cable's infringing products— no later than 2013 and, despite such knowledge, subsequently began infringing these patents.

- 30. Given that Time Warner Cable was aware of the E.D.P.A. Comcast Litigation and was coordinating with another cable company, Comcast, as to the defense of Sprint's various patent infringement claims against the cable companies, to the extent Time Warner Cable did not have actual knowledge of the '7,907 patent and '4,907 patent at the time it began infringement, Time Warner Cable's lack of knowledge was based on its knowing, intentional, and willful blindness with respect to Sprint's intellectual property rights, including the '7,907 patent and '4,907 patent. Specifically, to the extent Time Warner Cable and Charter did not have actual knowledge of the '7,907 patent and '4,907 patent, they willfully, intentionally, and egregiously blinded themselves from acquiring such knowledge in view of their subjective beliefs that there was a high probability that Sprint possessed patents relating to video-on-demand services and the accused products and that there was a high risk they infringed those patents.
- 31. On or about May 2016, following Charter's merger with Time Warner Cable, on information and belief, Charter gained knowledge of the '7,907 and '4,907 patents and the infringing nature of its products through its participation in, as well as funding and control of, Time Warner Cable's alleged defense in the litigation styled as *Sprint Communications Co. L.P.*

v. Time Warner Cable Inc., et al., Case No. 11-cv-2686-JWL (D. Kan.). See e.g., TWC Rule 7.1 Disclosure Statement, D.I. 253; Stipulated Protective Order, at 6, Sprint Communications Co. L.P. v. Comcast Cable Communications, LLC et al., Case No. 11-cv-2684-JWL (D. Kan.), D.I. 88.

32. Charter's knowledge of or willful blindness to certain of the Asserted Patents notwithstanding, Charter continued to make, use or operate, sell, and/or offer for sale its systems, products and services that infringe Sprint's intellectual property, all despite a high likelihood that Defendants' actions constituted infringement of one or more valid patents. Charter either knew or should have known, or was willfully blind to, such infringement of Sprint's intellectual property rights.

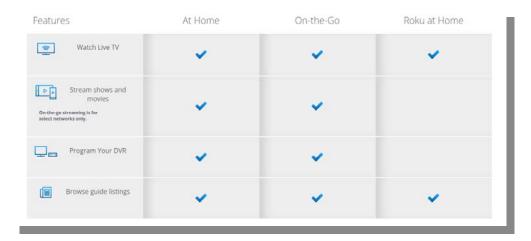
The Accused Products and Services

- 33. Sprint accuses Charter's video systems, products, and services in connection with, but not limited to, Spectrum TV, the "Spectrum TV" application, Spectrum TV.com, Charter TV, the "Charter TV" application, TWC TV, the "TWC TV" application, and TWCTV.com (collectively, the "Accused Products and Services").
- 34. For example, in connection with Charter's video service and architecture, and while using the Accused Products and Services, Charter operates an infringing video-on-demand system that infringes at least claim 1 of the '7,907 patent, claim 1 of the '4,907 patent, and claim 20 of the '077 patent. Through these products and services, Charter enables its customers to

See e.g., Charter Communications, Inc. 2017 Annual Report, at F-45 ("Sprint . . . filed a complaint in the U.S. District Court for the District of Kansas alleging that Legacy TWC infringes 12 U.S. patents purportedly relating to Voice over Internet Protocol ("VoIP") services. . . . Charter intends to vigorously defend against this lawsuit.") (emphasis added).

On information and belief, the TWC TV app was the predecessor app offering similar or identical functionality to the functionality provided by the Spectrum TV app when used in connection with Charter's or TWC's video systems.

discover, preview, control, and view video-on-demand information and content using portable devices:



What is the Spectrum TV App?

The Spectrum TV App on mobile:

The Spectrum TV App is a mobile application that allows you to watch live TV and On Demand content at no additional charge from your mobile device. You can also tune to your DVR, schedule recordings, browse the channel guide, search for content, learn about your favorite shows and more!

The Spectrum TV App on connected devices:

The Spectrum TV App can be used with your Roku, Samsung Smart TV and Xbox One. It's an application that allows you to watch Spectrum TV in even more places in your home by using your streaming device when connected to an authorized modem. You can browse the channel guide, search for live TV content on now and up to seven days in the future, learn about your favorite shows and more!

What is the Send to TV feature?

You can use the Spectrum TV App to control your cable Set-Top Box. Locate the "Send to TV" icon on the app. Next, choose which cable box should receive the content. (This option is found in Settings). Naming each cable box will help ensure you select the correct one.) Next, press the "Send to TV" button. If content is live, the box will tune to that specific channel and you can continue watching without interruption. If the content is On Demand, the On Demand menu screen will appear and you will need to use your remote to purchase and/or play the content.

This feature is available on Spectrum TV App on mobile devices and on Spectrum TV.com, but not on Roku, Xbox One or Samsung Smart TV.

See Experience the Spectrum TV App, Spectrum, https://www.spectrum.com/cable-tv/spectrum-tv-app.html (last accessed May 15, 2018).

Explore the Spectrum TV App

On Demand

Select the **On Demand** icon at the bottom of the screen to browse programming. After selecting an On Demand program, you can choose Watch on TV to send the program to your default Spectrum Receiver.

Note: The next episode of an On Demand TV series will automatically play once the current one finishes. This feature is only available for select TV shows in the On Demand library.

Watch On TV

The Watch on TV option allows you to use the Spectrum TV app to send select programming to a receiver in your home.

Note: The Watch on TV feature is only available for Spectrum TV customers with the iGuide or Passport guide. <u>Find out which guide you have.</u>

To send programming to a receiver to watch it on TV:

1. Select My Library and then open the Settings menu.

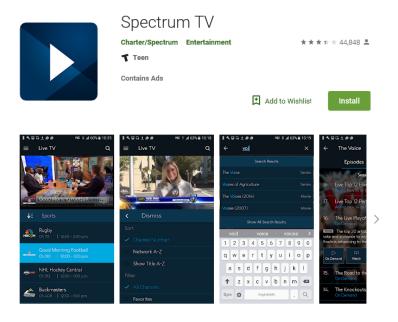


- Choose Devices from the Settings menu.
- Choose the receiver you want to send the program to. <u>Learn more</u> about managing your Devices.
- Select On Demand at the bottom of the screen and then choose the program you want to watch.
- 5. Tap Watch on TV.



A confirmation banner will appear at the top of your device's screen indicating the receiver the program is now playing on. <u>Learn how</u> to change your default device.

See Explore the Spectrum TV App, https://www.spectrum.net/support/tv/explore-spectrum-tv-app/ (last accessed May 15, 2018).



Take your Spectrum TV experience with you! With the Spectrum TV App, you can enjoy up to 250 live TV channels and up to 30,000 On Demand TV shows and movies when you're connected to your Spectrum Internet WiFi network at home. Plus, when you're on the go, enjoy up to 150 live channels and up to 20,000 On Demand titles anywhere you have an internet connection. (See note on availability below.)

See Spectrum TV, https://play.google.com/store/apps/details?id=com.TWCableTV&hl=en_US (last accessed May 15, 2018).



With the Charter TV App, customers now have even more choice in where and how they watch their favorite programming at no extra charge. Charter TV customers, can now watch over 130 live TV channels, browse thousands of On Demand titles and TV listings, schedule DVR recordings, get recommendations and more. The unique Kid Zone feature enables easy access to pre-approved kid-friendly content, creating a safe viewing experience for children. For sports fans, the Charter TV App Sport Zone feature gives fans instant access to scores and sports content. (Sport Zone is currently available on IOS, Android is forthcoming). Customers can even use their device as a remote to change channels on their TV. With the Charter TV App customers now have full control of their TV experience in the palm of their hands.

"We are excited to bring our customers the Charter TV App delivering greater choice and flexibility in how they watch their favorite content in their homes," said Rich DiGeronimo, Charter's senior vice president, product and strategy. "Our new Charter TV App provides a fully-interactive and user-friendly viewing experience, allowing customers to watch live TV, customize DVR recordings, and browse thousands of On Demand titles efficiently and intuitively."

Key Charter TV App Features:

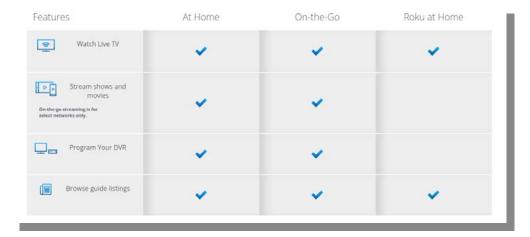
- · 130+ Live TV Channels Available for In-Home Viewing
- · Browse thousands of On Demand Listings
- Send To TV (Live and On Demand Listings)
- · Watch Showtime channels anywhere you go with a WiFi connection (Showtime subscription required)
- · Browse the Guide and search for content
- · DVR Scheduling
- View TV Listings
- · Kid Zone
- · Sport Zone

Requirements:

- Charter TV
- · Wi-Fi connection for streaming video
- · Charter.net email address and password
- iPhone, iPad or iPod Touch running iOS 5.1 or above
- Kindle Fire (except 1st generation), including the new Kindle Fire HDX
- Android devices (Tablet and Phone) running Android 4.0 or above

See Charter Communications, http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irolnewsArticle&ID=1916892 (last accessed May 15, 2018).

35. Charter's Accused Products and Services, including its video-on-demand system, comprise a second communication interface configured to transfer control screen signals to a second communication system (e.g., the Internet).



- What is the Spectrum TV App?

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The Spectrum TV App on connected devices:

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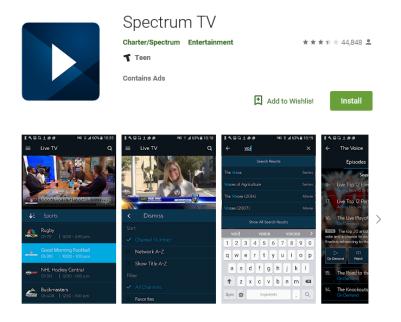


- 2. Choose **Devices** from the Settings menu.
- Choose the receiver you want to send the program to. <u>Learn more</u> about managing your Devices.
- 4. Select **On Demand** at the bottom of the screen and then choose the program you want to watch.
- 5. Tap Watch on TV.



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Requirements:

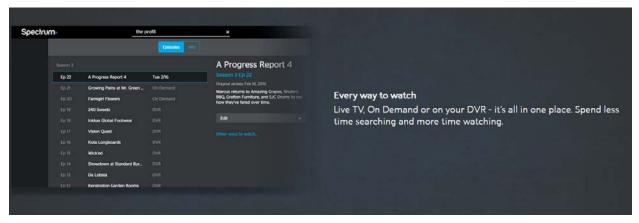
- Charter TV
- · Wi-Fi connection for streaming video
- · Charter.net email address and password
- · iPhone, iPad or iPod Touch running iOS 5.1 or above
- Kindle Fire (except 1st generation), including the new Kindle Fire HDX
- Android devices (Tablet and Phone) running Android 4.0 or above

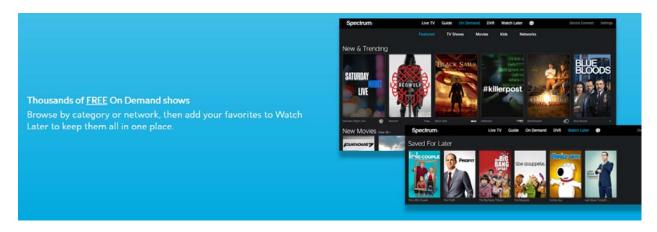
See Charter Communications, http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle&ID=1916892 (last accessed May 15, 2018).



See Charter's YouTube Channel, https://www.youtube.com/watch?v=Ia3RIIfq6OU (last accessed May 15, 2018).









See https://watch.spectrum.net/ (last accessed May 15, 2018).



Time Warner Cable video customers can now access more than 4,000 TV shows and movies on-demand from 91 programming partners at TWCTV.com via their PCs or Macs, for no additional charge.

In December, the MSO launched video-on-demand content for its <u>TWC TV app for iPad</u>; an Android version of the app also is in the works.

The content includes free as well as subscription on-demand content (for subscribers of premium networks such as HBO, Showtime and Starz). TWCTV.com provides pause, fastforward and rewind features (except fast-forward is disabled in some cases where programmers require it).

To view the content on the site, users must have Microsoft IE 7.0 or higher for Windows; or Firefox 4, Safari 5 or Chrome 24 for Windows or Macintosh. The Microsoft Silverlight plug-in version 5.0 or higher also is required.

See https://www.multichannel.com/news/time-warner-cable-adds-vod-content-twctvcom-326026 (last accessed May 15, 2018).

36. In addition, Charter's Accused Products and Services, including its video-on-demand system, comprises a second communication interface configured to receive a viewer or video control signal from the second communication system and to transfer video content or video signals (e.g., video content) to the second communication system (e.g., the Internet):

Features	At Home	On-the-Go	Roku at Home
Watch Live TV	~	~	~
On-the-go streaming is for select networks only.	~	~	
Program Your DVR	~	~	
Browse guide listings	~	~	~

What is the Spectrum TV App?

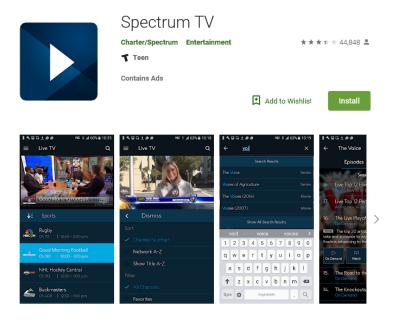
The Spectrum TV App on mobile:

The Spectrum TV App is a mobile application that allows you to watch live TV and On Demand content at no additional charge from your mobile device. You can also tune to your DVR, schedule recordings, browse the channel guide, search for content, learn about your favorite shows and more!

The Spectrum TV App on connected devices:

The Spectrum TV App can be used with your Roku, Samsung Smart TV and Xbox One. It's an application that allows you to watch Spectrum TV in even more places in your home by using your streaming device when connected to an authorized modem. You can browse the channel guide, search for live TV content on now and up to seven days in the future, learn about your favorite shows and more!

See Experience the Spectrum TV App, Spectrum, https://www.spectrum.com/cable-tv/spectrum-tv-app.html (last accessed May 15, 2018).



Take your Spectrum TV experience with you! With the Spectrum TV App, you can enjoy up to 250 live TV channels and up to 30,000 On Demand TV shows and movies when you're connected to your Spectrum Internet WiFi network at home. Plus, when you're on the go, enjoy up to 150 live channels and up to 20,000 On Demand titles anywhere you have an internet connection. (See note on availability below.)

See Spectrum TV, https://play.google.com/store/apps/details?id=com.TWCableTV&hl=en_US (last accessed May 15, 2018).



With the Charter TV App, customers now have even more choice in where and how they watch their favorite programming at no extra charge. Charter TV customers, can now watch over 130 live TV channels, browse thousands of On Demand titles and TV listings, schedule DVR recordings, get recommendations and more. The unique Kid Zone feature enables easy access to pre-approved kid-friendly content, creating a safe viewing experience for children. For sports fans, the Charter TV App Sport Zone feature gives fans instant access to scores and sports content. (Sport Zone is currently available on iOS, Android is forthcoming). Customers can even use their device as a remote to change channels on their TV. With the Charter TV App customers now have full control of their TV experience in the palm of their hands.

"We are excited to bring our customers the Charter TV App delivering greater choice and flexibility in how they watch their favorite content in their homes," said Rich DiGeronimo, Charter's senior vice president, product and strategy. "Our new Charter TV App provides a fully-interactive and user-friendly viewing experience, allowing customers to watch live TV, customize DVR recordings, and browse thousands of On Demand titles efficiently and intuitively."

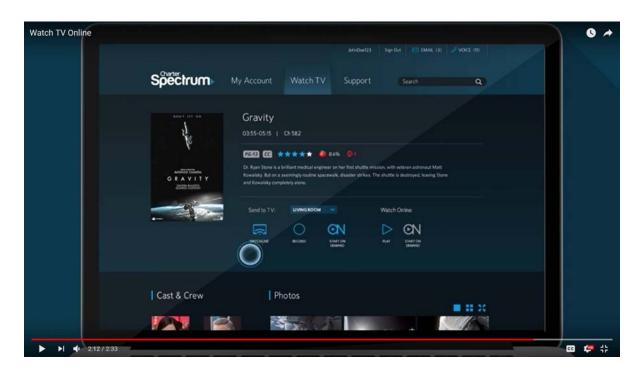
Key Charter TV App Features:

- · 130+ Live TV Channels Available for In-Home Viewing
- · Browse thousands of On Demand Listings
- · Send To TV (Live and On Demand Listings)
- · Watch Showtime channels anywhere you go with a WiFi connection (Showtime subscription required)
- · Browse the Guide and search for content
- DVR Scheduling
- View TV Listings
- · Kid Zone
- · Sport Zone

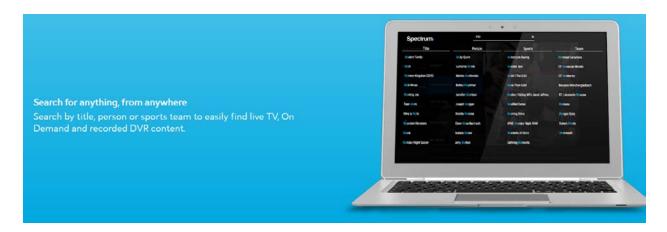
Requirements:

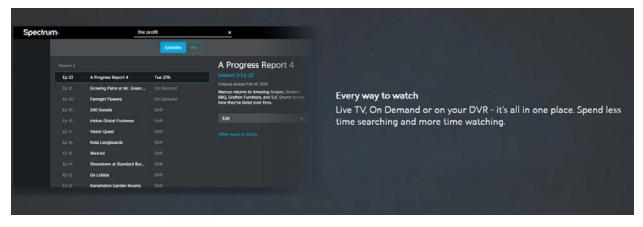
- Charter TV
- · Wi-Fi connection for streaming video
- · Charter.net email address and password
- · iPhone, iPad or iPod Touch running iOS 5.1 or above
- Kindle Fire (except 1st generation), including the new Kindle Fire HDX
- · Android devices (Tablet and Phone) running Android 4.0 or above

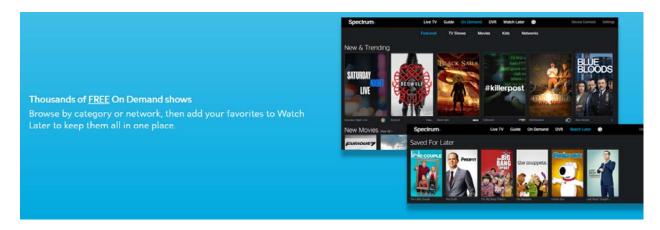
See Charter Communications, http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle&ID=1916892 (last accessed May 15, 2018).



See Charter's YouTube Channel, https://www.youtube.com/watch?v=Ia3RIIfq6OU (last accessed May 15, 2018).









See https://watch.spectrum.net/ (last accessed May 15, 2018).



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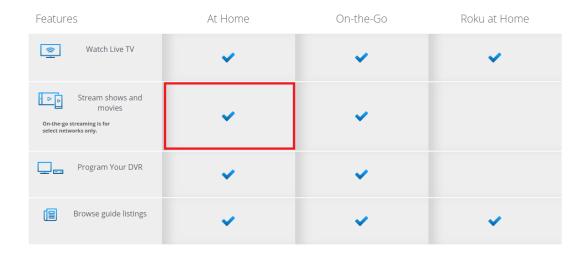
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See https://www.multichannel.com/news/time-warner-cable-adds-vod-content-twctvcom-326026 (last accessed May 15, 2018).

- 37. On information and belief, the control screen signal and video signals or video content signals sent to the second communication system would be sent using a bandwidth (e.g., using IP or HTTP) that is less than the bandwidth used to transfer first video signals or video content signals (e.g., using MPEG 2 or MPEG 4 format) to the first communication system.
- 38. Charter's Accused Products and Services, including its video-on-demand system, further comprise a first communication interface configured to transfer video signals or video content signals (e.g., VOD content) to a first communication system:



What is the Spectrum TV App?

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What is the Send to TV feature?

You can use the Spectrum TV App to control your cable Set-Top Box. Locate the "Send to TV" icon on the app. Next, choose which cable box should receive the content. (This option is found in Settings). Naming each cable box will help ensure you select the correct one.) Next, press the "Send to TV" button. If content is live, the box will tune to that specific channel and you can continue watching without interruption. If the content is On Demand, the On Demand menu screen will appear and you will need to use your remote to purchase and/or play the content.

This feature is available on Spectrum TV App on mobile devices and on Spectrum TV.com, but not on Roku, Xbox One or Samsung Smart TV.

See Experience the Spectrum TV App, Spectrum, https://www.spectrum.com/cable-tv/spectrum-tv-app.html (last accessed May 15, 2018).



Explore the Spectrum TV App

On Demand

Select the **On Demand** icon at the bottom of the screen to browse programming. After selecting an On Demand program, you can choose Watch on TV to send the program to your default Spectrum Receiver.

Note: The next episode of an On Demand TV series will automatically play once the current one finishes. This feature is only available for select TV shows in the On Demand library.

Watch On TV

The Watch on TV option allows you to use the Spectrum TV app to send select programming to a receiver in your home.

Note: The Watch on TV feature is only available for Spectrum TV customers with the iGuide or Passport guide. <u>Find out which guide you have.</u>

To send programming to a receiver to watch it on TV:

1. Select My Library and then open the Settings menu.

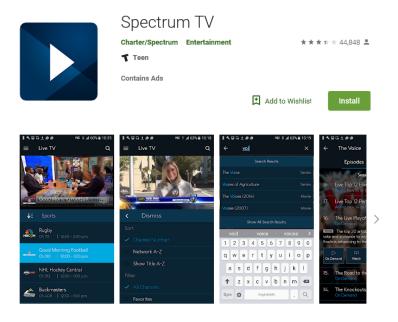


- Choose Devices from the Settings menu.
- Choose the receiver you want to send the program to. <u>Learn more</u> about managing your Devices.
- Select On Demand at the bottom of the screen and then choose the program you want to watch.
- 5. Tap Watch on TV.



A confirmation banner will appear at the top of your device's screen indicating the receiver the program is now playing on. <u>Learn how</u> to change your default device.

See Explore the Spectrum TV App, https://www.spectrum.net/support/tv/explore-spectrum-tv-app/ (last accessed May 15, 2018).



Take your Spectrum TV experience with you! With the Spectrum TV App, you can enjoy up to 250 live TV channels and up to 30,000 On Demand TV shows and movies when you're connected to your Spectrum Internet WiFi network at home. Plus, when you're on the go, enjoy up to 150 live channels and up to 20,000 On Demand titles anywhere you have an internet connection. (See note on availability below.)

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Requirements:

- Charter TV
- · Wi-Fi connection for streaming video
- · Charter.net email address and password
- · iPhone, iPad or iPod Touch running iOS 5.1 or above
- Kindle Fire (except 1st generation), including the new Kindle Fire HDX
- Android devices (Tablet and Phone) running Android 4.0 or above

See Charter Communications, http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle&ID=1916892 (last accessed May 15, 2018).



See Charter's YouTube Channel, https://www.youtube.com/watch?v=Ia3RlIfq6OU (last accessed May 15, 2018).

- 39. On information and belief, Charter's Accused Products and Services, including its video-on-demand system, comprise a processing system configured to transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, implement a viewer-control selection indicated by a video control signal, and transfer video content signals or video signals to either the first communication interface or second communication interface, depending on which is indicated by the viewer control signal. *See*, *e.g.*, Complaint at ¶¶ 35-38.
- 40. Furthermore, Charter operates a video system, including a video system that transfers or provides streaming video content to a viewer using the Spectrum TV app, as noted above. *See, e.g.*, Complaint ¶¶ 33-36.
- 41. The Spectrum TV App receives video from a network. For instance, the Spectrum TV App will receive video from Charter's IP network. Additionally, the Spectrum TV App

and/or Charter's backend (including mid cache or edge cache tier servers) receive a network signal (e.g., video data packets) from a communications network (e.g., Charter Internet Service) where the network signal contains a video. *See, e.g.*, Complaint ¶ 33-36.

- 42. Further, the Spectrum TV App, alone or in combination with Charter's video systems, provides video buffering before displaying video. For example, prior to displaying a video, the Spectrum TV App will display text stating that it is "buffering." Further, on information and belief, the Spectrum TV App and/or Charter's backend store the video from the network signal (e.g., video data packets) in memory.
- 43. Additionally, on information and belief, the Spectrum TV App, alone or in combination with Charter's video system, determines the timing and rate to transfer video from memory to a video display. For example, Charter varies the timing of transfer of video data packets from memory.
- 44. For example, on information and belief, the Spectrum TV App, alone or in combination with Charter's video system, responds to a video slider interface, determining when to initiate the video based on user selection of a slider position the Spectrum TV app. Further, the Spectrum TV App will buffer for varying lengths of time depending on network speed, video resolution, and starting position of the video to be viewed.
- 45. Additionally, the Spectrum TV App, alone or in combination with Charter's video system, transfers the video from memory to the video display. For instance, after the video has been selected, and after some period of "buffering," the Spectrum TV App will begin to display the selected video. Further, Charter's backend transfers video from memory to a portable device over an Internet connection and/or to the video display of a portable device.

- 46. On information and belief, the Spectrum TV App, alone or in combination with Charter's video systems or backend, varies the timing of transferring stored video to a display, based on a first time period that is related to the amount of time that it takes a certain rate to display a certain amount of stored video.
- 47. For example, on information and belief, the Spectrum TV App, alone or in combination with Charter's video systems and/or backend, varies the rate of video transfer depending on resolution and network speed.
- 48. The Spectrum TV App, alone or in combination with Charter's video system, varies the timing of transferring stored video to a display. On information and belief, this timing is based on a first time period that is related to the amount of time that it takes at a certain rate to display a certain amount of stored video. For example, on information and belief, the Spectrum TV App, alone or in combination with Charter's video system, varies the rate of video transfer depending on video resolution and network speed.
- 49. On further information and belief, the Spectrum TV App, alone or in combination with Charter's video system, varies the rate at which a video signal is transferred from memory to the video display based on a second time, which is related to the amount of time necessary to receive a second amount of video from the network. For instance, the Spectrum TV App alone or in combination with Charter's video systems or backend, varies the rate at which a video signal is transferred from memory to the video display based on a second time, which is related to the amount of time necessary to receive a second amount of video from the network. As an example, when a first amount of video remains to played, there is a certain amount of buffering that occurs before video is displayed, whereas when a second amount of video remains to be played, there is a different amount of buffering that occurs before video is displayed.

COUNT 1: PATENT INFRINGEMENT (Infringement of U.S. Patent No. 6,754,907)

- 50. Sprint Communications realleges and incorporates by reference the allegations set forth in Complaint Paragraphs 1–49 above.
- 51. Upon information and belief, Charter and/or one of its subsidiaries has been, and currently is, directly infringing at least claim 1 of the '4,907 patent by making, using, selling, and offering for sale video-on-demand systems, including the Accused Products and Services that infringe one or more claims of the '4,907 patent.
- 52. For example, on information and belief, Charter's Accused Products and Services had/have a first communication interface (e.g., interface to a cable service network) configured to transfer video content signals to a first communication system. On information and belief, Charter's Accused Products and Services had/have a second communication interface (e.g., interface to network providing Internet service) configured to transfer the video content signals to a second communication system, transfer a control screen signal to the second communication system, and receive a video control signal from the second communication system. information and belief, Charter's Accused Products and Services had/have a processing system configured to transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, implement a viewer-control selection indicated by the video control signal, and transfer the video content signals to the first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transfer the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

- 53. Upon information and belief, Charter's infringement of the '4,907 patent will continue unless enjoined by this Court.
- 54. As a direct and proximate consequence of Charter's infringement of the '4,907 patent, Sprint Communications has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint Communications is entitled to relief.

COUNT 2: PATENT INFRINGEMENT (Infringement of U.S. Patent No. 6,757,907)

- 55. Sprint Communications realleges and incorporates by reference the allegations set forth in Complaint Paragraphs 1–54 above.
- 56. Upon information and belief, Charter and/or one of its subsidiaries has been, and currently is, directly infringing at least claim 1 the '7,907 patent by making, using, selling, and offering for sale video-on-demand systems, including the Accused Products and Services, that infringe one or more claims of the '7,907 patent.
- 57. For example, on information and belief, Charter's Accused Products and Services had/have a first communication interface (e.g., interface to a cable service network) configured to transfer first video signals to a first communication system using a first bandwidth. On information and belief, Charter's Accused Products and Services had/have a second communication interface (e.g., interface to network providing Internet service) configured to transfer a control screen signal and second video signals to a second communication system using a second bandwidth that is less than the first bandwidth. On further information and belief, Charter's Accused Products and Services had/have a processing system configured to transfer the control screen signal to the second communication interface, receive a viewer control signal from the second communication interface, and transfer the first video signals to the first communication interface if the first communication system is indicated by the viewer control

signal or transfer the second video signals to the second communication interface if the second communication system is indicated by the viewer control signal.

- 58. Upon information and belief, Charter's infringement of the '7,907 patent will continue unless enjoined by this Court.
- 59. As a direct and proximate consequence of Charter's infringement of the '7,907 patent, Sprint Communications has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint Communications is entitled to relief.

COUNT 3: PATENT INFRINGEMENT (Infringement of U.S. Patent No. 7,559,077)

- 60. Sprint Communications realleges and incorporates by reference the allegations set forth in Complaint Paragraphs 1–59 above.
- 61. Upon information and belief, Charter and/or one of its subsidiaries has been, and currently is, directly infringing at least claim 20 the '077 patent by making, using, selling, and offering for sale video systems, including the Accused Products and Services, that infringe one or more claims of the '077 patent.
- 62. For example, on information and belief, Charter's Accused Products and Services receive/received a network signal from a communication network wherein the network signal includes video. On information and belief, Charter's Accused Products and Services store/stored the video from the network signal in a memory. On information and belief, Charter's Accused Products and Services determine/determined when to initiate transfer of a video signal including the video from the memory based on a first time period and a second time period wherein the first time period is determined based on the video display rate times a first amount of the video in the memory and the second time period is determined based on a network transfer rate times a second amount of the video to be Subsequently received in the network signal. On further

information and belief, Charter's Accused Products and Services transfer/transferred the video signal to a video display in response to determining when to initiate the transfer. These actions are taken by Charter directly, either acting alone or through the direction or control of Charter customers. For instance, Charter provides the Accused Products and Services (including the Spectrum TV App) to its customers to view video. The Spectrum TV App is programed to execute infringing actions, and/or to encourage, direct, or control Charter customers to cause it to execute infringing actions. These actions of Charter customers are attributable to Charter.

- 63. Upon information and belief, Charter's infringement of the '077 patent will continue unless enjoined by this Court.
- 64. As a direct and proximate consequence of Charter's infringement of the '077 patent, Sprint Communications has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint Communications is entitled to relief.

PRAYER FOR RELIEF

Wherefore, Sprint requests entry of judgment in its favor and against Charter as follows:

- A. Enter judgment that Charter has directly infringed one or more claims of the Asserted Patents:
- B. Enter a permanent injunction restraining and enjoining Charter, and their respective officers, agents, servants, employees, attorneys, and those persons in active concert or participation with Charter who receive actual notice of the order by personal service or otherwise, from any further sales or use of their infringing products and/or services and any other infringement of the Asserted Patents, whether direct or indirect.
- C. An award of damages to compensate Sprint for Charter's infringement, including damages pursuant to 35 U.S.C. § 284, as well as prejudgment and post-judgment interest;

- D. An award of costs and expenses in this action, including an award of Sprint's reasonable attorneys' fees pursuant to 35 U.S.C. § 285;
- E. A finding that Charter has willfully infringed and is willfully infringing one or more claims of one or more of the Asserted Patents;
- F. A finding that this is an exceptional case, award treble damages due to Charter's deliberate and willful conduct, and order Charter to pay Sprint's costs of suit and attorneys' fees; and
- G. For such other and further relief as the Court may deem just, proper, and equitable under the circumstances.

DEMAND FOR A JURY TRIAL

Sprint respectfully demands a trial by jury on all claims and issues so triable.

Dated: May 16, 2018 Respectfully Submitted,

Of Counsel:

SHOOK, HARDY & BACON L.L.P.

B. Trent Webb (*pro hac vice* to be filed)
Ryan D. Dykal (*pro hac vice* to be filed)
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